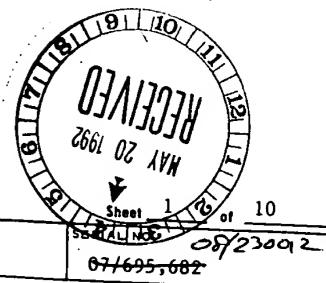


FORM PTO	1449	U.S.	DEPARTME	DEMI	T		Sheet 1	of1
·5E V. 7•80)				TOF COMMERCE	ATTY. DOCKET NO	). 	SERIAL NO. 0	5/230012
דו?	T O	F ART CITED I	BY APPLI	CANT	APPLICANT	Edd- Cours	141	15/
	(	Use several sheets i	if necessary	·) •	FILING DATE	Edwin SOUT	<i>_</i>	(6)
<del></del>	<del>-</del>				May 3, 199	<u>1</u> .	CAROLINA AND AND AND AND AND AND AND AND AND A	1807
XAMINER	<del></del>		<del></del>	U.S. PATENT	DOCUMENTS		W YES 2	1.711
TITIAL		DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	LE APPROP
<del></del>	AA						6	(6)
	AB						नि	TO
	AC							<u> </u>
	AD							
	AE		·		·			
	AF						· ·	
	AG							
	AH							
	AI							
	A.J							
	AK							
	AN		·					
				FOREIGN PATE	NT DOCUMENTS			<del></del>
Λ Λ	-	DOCUMENT NUMBER	DATE	cou	INTRY	CLASS	SUBCLASS	TRANSLATI
N/W	AL	1284931	6-13-91	Canada, E,	rlich et d.			
Mh	AM	89/11548	11-30-89		etal.		_	
AM	AN	237362	9-16-87	EP-A, En	liketal.		-	
	AO							
	AP							
		OTHER	ART	(Including Author	Title fate, Porting	ent Pages, Etc.	)	
DAN	-	Gingeras,	T-D et-	a Mari	Anid Passan	- h !! 15 (10)	5070	4
714	AR	·		, J.	e Acid Resear	<del></del>	53/3-5390	(1987)
				·				
	AS				·			
	AT		<del></del>					
XAMINE								<del></del>
·^#MINE	` /	Li March	)		DATE CONSIDERED		· · · · · · · · · · · · · · · · · · ·	<del></del>
	H	-de 11 (and	~1	1	8-11	7-92		
				1	0 16	'		





FORM PTO-1449 (REV. 7-80) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE ATTY. DOCKET NO. LIST OF ART CITED BY APPLICANT APPLICANT

T12	T O	OF ART CITED I	BY APPL	JICANT	APPLICANT 07/695,682					
	1)	(Use several sheets	if necessar	(ער	Edwin	n SOUTHER				
			·	,	May 3, 1991		GROUP	87 180	9	
EXAMINER	T—	1		U.S. PATENT			<u></u>	HIL	<del>'</del>	
INITIAL		DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FIL	ING DATE	
	AA					+		IF APP	PROPRIATE	
	AB					+	+	-		
	AC					+	+	-		
	AD				·	-	-	-		
	AE	1				+	<del> </del>	-		
	AF	1				-	-	<del> </del>		
	AG					<del> </del>	-	-		
	АН					+		 		
	AI	_	•			+		-		
	LA					+		+		
	AK		·			+		-	<del></del>	
				FOREIGN PATENT	T DOCUMENTS					
		DOCUMENT NUMBER	DATE	COUN		CLASS	SUBCLASS	TRANSL	LATION	
<u> </u>	AL	88/01302	2-25-88	WO, Engerso	td.			YES	NO	
AM	АМ	0,392,546	10-17-90	EP-A2, Drm	Ad.				-	
	AN	570/87		Yugoslavia				<u> </u>	<del> </del>	
	AO			det?				XXX		
	АР						-	<b></b> '	-	
<del></del>	<del></del>	OTHER	ART	(Including Author, 7	Title, Date, Pertinent Pa	2000		<u></u> '		
AM	AR -	•	inical Mi	icrobiology Re	eviews, 1(1), 82-1	101 (Jani	1988			
·						.01 (0	ary 1500,	<del>'</del>		
AM	AS -	Ogle et al.,	The Jou	rnal of Infec	tious Diseases, <u>l</u>	<u>155(1)</u> , 1	.19-126 (.	Januar	y 1987	
M	AT _	Moseley et a	11., <u>Adva</u>	nces in Resea	rch on Cholera an	nd Relate	ed Diarrh	eas,		
		207-216 (198:	,3)							
EXAMINER		And M.	arabel	DA	8-10-92					

Marchel 8-10-92

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.





<del></del>			WADEM			H Kr	MI'S Lh	<b>20/1</b> 10
FORM PTO-14 IREV. 7-80)	149	U.S. PATE	DEPARTMENT AND TRA	NT OF COMMERC	E ATTY, DOCKET NO.	55	RIAL NO.	X08/230012
LIST		ART CITED B		•	APPLICANT Fdwin	SOUTHERN		
	Œ	lse several sheets i	f necessary	"	FILING DATE		ROUP	, 1809
<del></del>	<del></del>		<del></del>		May 3, 1991	·	المار	
EXAMINER				U.S. PATEI	T DOCUMENTS	<del></del>	<del>,</del>	· · · · · · · · · · · · · · · · · · ·
INITIAL		DOCUMENT NUMBER	DATE	1	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA							
	AB							
·	AC		·	1				
	AD				•			
	AE							
	AF				-U			
	AG							
	АН			¥				† ·
	AI							
	ΑJ			,				
	AK					<del></del>		
	<del></del> -			FOREIGN P	ATENT DOCUMENTS			
		DOCUMENT NUMBER	DATE	1	COUNTRY	CLASS	SUBCLASS	
	AL				•			YES NO
	АМ		<del>                                     </del>	1				
	AN			1				
	ΑO			<u> </u>				
	AP			<del> </del>			_	-
<del></del>		1		(Including A.	the Title Data Parisase	Para Cara	<u> </u>	
<u>a</u> m	<del></del>		R ART	<del>-</del>	thor, Title, Date, Pertinent f Infectious Diseas			(1990)
/1/	AR		, 1110	- Courties V	- Infections Diseas	101		(1790)
A () -	<del></del>	N1						
NN	AS	Ezakı, Asia	in med. J	<u>., 34(8)</u> ,	454-459 (1991)	····		
			<del>-</del>		<del>}</del>		<u>.</u> .	
W	AT	Ezaki et al	., Cance	er, <u>61</u> , 106	(1988)			
					*			
EXAMINE	R	AliMas	Les		DATE CONSIDERED			
	<del></del>	11 11			8-10-92			

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citatian il not in conformance and not considered. Include copy of this form with next communication to applicant.





ORM PTO-1 REV. 7-80)	449	U.S. PATE	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE SERIAL NO.				8/230012		
LIS		ART CITED B			APPLICANT				
	(Ü	se several sheets i	necessary	) -	FILING DATE	SOUTHERN			
		-			May 3, 1991		عملر آگلر	1809	
<del></del>	·			U.S. PATENT	DOCUMENTS				
XAMINER NITIAL		DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DATE	
	AA								
	AB				· · · · · · · · · · · · · · · · · · ·				
	AC				•				
	AD						†		
	AE								
	AF						<del> </del>		
	AG	**************************************				<del>-  </del>	<u> </u>		
	АН	····							
	AI					<del></del>			
	AJ								
	AK						<del> </del>		
	· · · · · ·			FOREIGN PATE	NT DOCUMENTS		1		
•		DOCUMENT NUMBER	DATE	COL	JNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
	AL				·	<del></del>		YES NO	
	АМ		" " " " " " " " " " " " " " " " " " " "						
	AN						<u> </u>		
	AO								
	AP								
		OTHER	ART	(Including Autho	r, Title, Date, Pertinent	Pages, Etc.)		1	
	AR	Horn et al	Goneta	se-Communicat	ions, 1250-1252	13			
						Jala .		· <del>* * * * * * * * * * * * * * * * * * *</del>	
AM	A\$	Robins-Bro	wne et a	l., Journal o	f Clinical Microl	oiology,	<u>27(4)</u> , 64	4-650	
		(April 198	9)						
AM	AT	Ezaki et a	l., <u>Inter</u>	rnational Jou	rnal of Systemati	lc Bacter	iology, 3	6(2),	
<b></b>		345-347 (1	986)						
EXAMINE	R /	hdi Masl	d		DATE CONSIDERED		<u> </u>		
		<del></del>			1				





FORM PTO-1	1449		22242				. 2118	of
(REV. 7-80)	. 447	U.S.	DEPARTMEI	NT OF COMMERCE ADEMARK OFFICE	ATTY. DOCKET NO.	S	07/695,61	8/230012
LIS	T OI	F ART CITED B	Y APPL	ICANT	APPLICANT	<u>-</u>		
	a	Jse several sheets i	l necessari	v)		n SOUTHERI	N	
				, ,	FILING DATE	(	ROUP	1809
<del></del>					May 3, 1991	· .	187	7
EXAMINER				U.S. PATENT	DOCUMENTS	<del></del>	<del></del>	
NITIAL		DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIAT
	AA							
	AB							
	AC							
	AĐ							
	AE					<del></del>		
	AF						<del> </del>	
	AG				·			
	AH							
	AI							
	AJ							
	AK							
				FOREIGN PATE	NT DOCUMENTS		. <del> </del> .	<u> </u>
	i	DOCUMENT NUMBER	DATE	cou	INTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	AL							YES NO
	АМ				· <u>·</u>			
	AN						<del> </del>	
	AO			<del> </del>				
	AP						<del>-</del>	
		Omura	3.00	(Including Author	, Title, Date, Pertinent	Proper Fra V		
AM	<del>- 12 · </del>	OTHER McDonough			linical Microbio	· · · · · · · · · · · · · · · · · · ·	2) - 2515-	-2519 (1988)
14	AR	<del></del>	<del></del>			<u> </u>	<del></del> ,	
AM	<u>.                                    </u>	Bunerar at	ida Pass	10/00\	71/0 7100 //0-	~	<del></del>	
<i>N 1</i> × \	AS	A MUCTETC AC	TUD VESE	:arcn, 10(22)	, 7163-7180 (1983	<u> </u>		- <del></del>
A .		Freter at d.	<del></del>					
AM	AT	Nucleic Ac	ids Rese	earch, 13(3),	745-761 (1985)	<del></del>	· · · · · · · · · · · · · · · · · · ·	
,								
EXAMINE	R/I	di Marsch	A	<u> </u>	DATE CONSIDERED	T	<del></del>	

in conformance and not considered. Include copy of this form with next communication to applicant.





FORM PTO-1449 (REV. 7-80) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE ATTY. DOCKET NO. LIST OF ART CITED BY APPLICANT APPLICANT Edwin SOUTHERN (Use several sheets if necessary) FILING DATE GROUP May 3, 1991 U.S. PATENT DOCUMENTS EXAMINER DOCUMENT NUMBER DATE INITIAL NAME FILING DATE IF APPROPRIATE CLASS SUBCLASS AA AB AC AD ΑE AF AG AH ΑI AJ ΑK FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER TRANSLATION DATE COUNTRY SUBCLASS YES NO AM AN ΑO ΑP (Including Author, Title, Date, Pertinent Pages, Etc.) OTHER ART Koomey et al., Infection and Immunity, 43(1), 101-107 (January 1984) AR AM Syvanen, Medical Biology, 64, 313-324 (1986) (Review Article) AS AM Nagata et al., <u>FEBS Letters</u>, <u>183(2)</u>, 379-382 (April 1985) AT

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

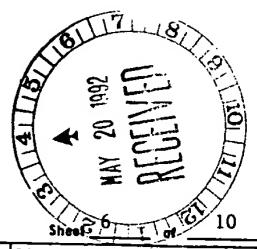
DATE CONSIDERED

8-10-92

EXAMINER

Andin Marshel





FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE ATTY. DOCKET NO. (REV. 7-80) LIST OF ART CITED BY APPLICANT APPLICANT Edwin SOUTHERN (Use several sheets if necessary) FILING DATE GROUP 1809 May 3, 1991 187 U.S. PATENT DOCUMENTS EXAMINER DOCUMENT NUMBER DATE INITIAL NAME FILING DATE
IF APPROPRIATE CLASS SUBCLASS AA AB AC AD ΑE ΑG AH AL FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER TRANSLATION DATE COUNTRY CLASS SUBCLASS YES NO AL AM ΑO ΑP (Including Author, Title, Date, Pertinent Pages, Etc.) OTHER ART AM Ezaki et al., FEMS Microbiology Letters, 67, 127-130 (1990) AM Kilpper-Balz et al., System. Appl. Microbiol., 5, 494-500 (1984) AS Habermehl, Ed.,
Rapid Methods and Automation in Microbiology and Immunology, 30-33 (1985) AM AT EXAMINER DATE CONSIDERED 8-10-92 \*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609, Draw line through citation if not in conformance and not considered. Include capy of this form with next communication to applicant.





10 FORM PTO-1449 (REV. 7-80) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE ATTY. DOCKET NO. 230012 LIST OF ART CITED BY APPLICANT APPLICANT (Use several sheets if necessary) Edwin SOUTHERN FILING DATE 18/ 1809 GROUP May 3, 1991 U.S. PATENT DOCUMENTS EXAMINER DOCUMENT NUMBER INITIAL DATE NAME CLASS FILING DATE
IF APPROPRIATE SUBCLASS AA AB AC AD ΑE ΑF ΑĢ AH Αl ΑK FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE COUNTRY TRANSLATION CLASS SUBCLASS YES NO AL AM AN AP (Including Author, Title, Date, Pertinent Pages, Etc.) OTHER ART DM Schachter, Diagn. Microbiol. Infect. Dis., 4, 185-189 (1986) AR pm Starnbach, Journal of Clinical Microbiology, 27(6), 1257-1261 (June 1989) A\$ AM Ezaki et al., <u>Microbiol. Immunol.</u>, <u>32(2)</u>, 141-150 (1988) AT EXAMINER Li Maraha DATE CONSIDERED 8-10-92

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not

in conformance and not considered. Include copy of this form with next communication to applicant.





FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE ATTY. DOCKET NO. (REV. 7-80) LIST OF ART CITED BY APPLICANT APPLICANT Edwin SOUTHERN (Use several sheets if necessary) 187 1809 FILING DATE GROUP May 3, 1991 U.S. PATENT DOCUMENTS EXAMINER DOCUMENT NUMBER FILING DATE DATE NAME CLASS SUBCLASS INITIAL AB AD ΑE AF ΑG AH FOREIGN PATENT DOCUMENTS TRANSLATION DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS YES NO AL AM AN ΑO AP (Including Author, Title, Date, Pertinent Pages, Etc.) OTHER ART NM Ezaki et al., J. Gen. Appl. Microbiol., 34, 191-199 (1988) AR AM Ezaki et al., Journal of Clinical Microbiology, 26(9), 1708-1713 AŞ (September 1988) AM Farrow et al., <u>System. Appl. Microbiol.</u>, <u>5</u>, 467-482 (1984) AT EXAMINER DATE CONSIDERED Andi Marshal 8-10-92 \*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609, Draw line through citation if not

in conformance and not considered. Include copy of this form with next communication to applicant.

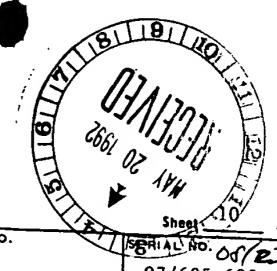


WHY 20 1992 (Ox 64.23

10

FORM PTO. (REV. 7-80)	1449	U.S.	DEPARTMEN	TOF COMMERCE	ATTY. DOCKET NO.		Sheet 9	21 <u></u>	10
LIS	T OI	F ART CITED B	•		APPLICANT	]	01/035	82	360/2
	(1	Use several sheets i	i APPLI Inecessarv	CANT	l .	in SOUTHER	N.		
					May 3, 1991		GROUP	1809	
EXAMINER			<del> </del>	U.S. PATENT	DOCUMENTS			- 	<del></del>
INITIAL		DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING	G DATE
-: <u>-</u>	AA			· .				<del>                                     </del>	
	AB								
	AC								
	AD								·
	AE								<u> </u>
	AF								
	AG			<del></del>					
	АН								
	Al							<u> </u>	<del> </del>
	LA						<del> </del>	<del> </del>	<del></del>
	AK								<del></del>
				FOREIGN PATE	NT DOCUMENTS			1	<u></u>
÷		DOCUMENT NUMBER	DATE	COL	INTRY	CLASS	SUBCLASS	TRANSL	ATION
	AL					<del>-  </del>		YES	NO
	AM						+		-
	AN				<del></del>				1
	AO							<del> </del>	
	AP							<del> </del>	<u> </u>
		OTHER	ART	(Including Author	, Title, Date, Pertinen	t Pages, Etc.	<u> </u>		
AM					icrobiol., 5, 48				
, i	AR							<del></del>	<del></del>
AM		Dean et al	., Journ	al of Clinica	al Microbiology,	27(5). 1	062-1067	(May 10	801
	AS	0.4.1			<u> </u>				
AM		Nucleic Ac	ids Rese	arch, 15(13)	5353-5372 (198				
	AT	/\			, 3333 3372 (190				<del>-</del>
EXAMINE	₹	/\	Λ		DATE CONSIDERED			<del></del>	
		11 V. 11	malel	,					
		Ary 1010	novel		8-10-92				





FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.

10

LIST	OF	ART	CITED	BY	APPLICANT
	m				_ 00

(Use several sheets if necessary)

APPLICANT Edwin SOUTHERN

		Use several sheets	necessar	y) .	FILING DATE	in SOUTHER		<del></del>	
<del></del>	<del></del>				May 3, 1991		GROUP	T 1809	7
EXAMINER		DOCUMENT NUMBER		U.S. PATENT	DOCUMENTS				
	AA	TOWNER TOWNER	DATE		NAME	CLASS	SUBCLASS	FILI IF APP	NG DATE
				·					
•	AB		,						
	AD								
	AE							<del> </del>	
	AF						<del>                                     </del>		·
	AG						<del> </del>	<del> </del> -	
	АН								
	ΑI						<del> </del>		· · · · · · · · · · · · · · · · · · ·
	ΔJ						<del> </del>		<del></del> -
	AK								<del></del>
				FOREIGN PATE	NT DOCUMENTS		<u> </u>		
		DOCUMENT NUMBER DAT		cou	CLASS	SUBCLASS	TRANSLATION		
	AL							YES	NO
	АМ						<u> </u>		<del> </del>
	AN						<del> </del>	<del></del>	-
	AO								
	AP							<u></u>	
AM	AR	OTHER Grisero Ad, Nucleic Ac	ART ids Rese	(Including Author,	Title, Date, Pertinent 5373-5390 (198	Pages, Etc.)		<del></del>	
							·		<del>-</del>
AM	AS -	Church et	al., <u>Sci</u> e	ence, <u>240</u> , 18	5-188 (April 8,	1988)			
		Bureman		arah 10(22)	7191 7106 (106	82)	·		
10	AT_	Nucleic Ac	1ds Rese	arcii, 10(22)		<del></del>		<b></b>	_
0/h	AT _	Nucleic Ac			PATE CONSIDERED				-

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.